

SEQUENCE LISTING

<110> Welcher, Andrew Wen, Duanzhi Kelly, Michael <120> Interferon-Like Molecules and Uses Thereof <130> 99,372-F <140> 09/927,850 <141> 2001-08-10 <150> 09/724,860 <151> 2000-11-28 <150> 60/169,720 <151> 1999-12-08 <160> 39 <170> PatentIn Ver. 2.0 <210> 1 <211> 913 <212> DNA <213> Rattus norvegicus <220> <221> CDS <222> (53)..(625) <220> <221> sig_peptide <222> (53)..(115) gggtgttgta gatatttttc ctttggaaga aatactgagc accaaggctg ag atg aca 58 Met Thr 1 ctg aag tat tta tgg ctg gtg gcc ctc gtg gct cta tac att tca ccc 106 Leu Lys Tyr Leu Trp Leu Val Ala Leu Val Ala Leu Tyr Ile Ser Pro 154 atc cag tct cag aac tgt gtg tat ctg gat cat acc atc ttg gaa aac Ile Gln Ser Gln Asn Cys Val Tyr Leu Asp His Thr Ile Leu Glu Asn 25 20 atg aaa ctt ctg agc agc atc agg acc acc ttt ccc tta aga tgt cta 202 Met Lys Leu Leu Ser Ser Ile Arg Thr Thr Phe Pro Leu Arg Cys Leu 35 40 45 aaa gat atc acg gat ttt gag ttt cct caa gag att ctg ctg tac gtc 250 Lys Asp Ile Thr Asp Phe Glu Phe Pro Gln Glu Ile Leu Leu Tyr Val 55

cag Gln	cat His	gtg Val	aaa Lys 70	aag Lys	gac Asp	ata Ile	aag Lys	gca Ala 75	gtc Val	acc Thr	tat Tyr	cat His	ata Ile 80	tct Ser	tct Ser	298
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Cys Leu Lys Asp Ile Thr Asp Phe Glu Phe Pro Gln Glu Ile Leu Leu 50 55 60

Tyr Val Gln His Val Lys Lys Asp Ile Lys Ala Val Thr Tyr His Ile 65 70 75 80

Ser Ser Leu Ala Leu Ile Ile Phe Ser Leu Lys Asp Ser Ile Ser Leu 85 90 95

Ala Thr Glu Glu Arg Leu Glu Arg Ile Arg Ser Gly Leu Phe Lys Gln
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Val Gln Gln Ala Arg Glu Cys Met Val Asp Glu Glu Asn Lys Asn Thr 115 120 125

Glu Glu Asp Ser Thr Ser Gln His Pro His Ser Glu Gly Phe Lys Ala 130 135 140

Val Tyr Leu Glu Leu Asn Lys Tyr Phe Phe Arg Ile Arg Lys Phe Leu 145 150 155 160

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Asp Ile Lys Ala Val Thr Tyr His Ile Ser Ser Leu Ala Leu Ile Ile 50 55 60

Phe Ser Leu Lys Asp Ser Ile Ser Leu Ala Thr Glu Glu Arg Leu Glu 65 70 75 80

Arg Ile Arg Ser Gly Leu Phe Lys Gln Val Gln Gln Ala Arg Glu Cys 85 90 95

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His Pro His Ser Glu Gly Phe Lys Ala Val Tyr Leu Glu Leu Asn Lys

115 120 125

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gtc acc tgg caa aat ctg aga cat ctg agt agt atg agc aat tca ttt 739

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	tat Tyr	gaa Glu	atg Met 90	tcc Ser	cta Leu	cag Gln	gcc Ala	ttc Phe 95	aac Asņ	atc Ile	ttc Phe	agc Ser	caa Gln 100	cac His	acc Thr	ttc Phe	883
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,	ttt	ctgt	ggc	catt	ttga	aa g	agct	ttgc	t at	atat	acca	cct	gtgg	act	tcac	caagac	1525
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. .

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Ser Ser Met Ser Asn Ser Phe Pro Val Glu Cys Leu Arg Glu Asn Ile 50 55 60

Ala Phe Glu Leu Pro Gln Glu Phe Leu Gln Tyr Thr Gln Pro Met Lys
65 70 75 80

Arg Asp Ile Lys Lys Ala Phe Tyr Glu Met Ser Leu Gln Ala Phe Asn 85 90 95

Ile Phe Ser Gln His Thr Phe Lys Tyr Trp Lys Glu Arg His Leu Lys
100 105 110

Gln Ile Gln Ile Gly Leu Asp Gln Gln Ala Glu Tyr Leu Asn Gln Cys 115 120 125

Leu Glu Glu Asp Glu Asn Glu Asp Met Lys Glu Met Lys Glu 130 135 140

Asn Glu Met Lys Pro Ser Glu Ala Arg Val Pro Gln Leu Ser Ser Leu 145 150 155 160

Glu Leu Arg Arg Tyr Phe His Arg Ile Asp Asn Phe Leu Lys Glu Lys 165 170 175

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Glu Asn Ile Ala Phe Glu Leu Pro Gln Glu Phe Leu Gln Tyr Thr Gln 35 40 45

Pro Met Lys Arg Asp Ile Lys Lys Ala Phe Tyr Glu Met Ser Leu Gln 50 55 60

Ala Phe Asn Ile Phe Ser Gln His Thr Phe Lys Tyr Trp Lys Glu Arg
65 70 75 80

His Leu Lys Gln Ile Gln Ile Gly Leu Asp Gln Gln Ala Glu Tyr Leu 85 90 95

Asn Gln Cys Leu Glu Glu Asp Glu Asn Glu Asn Glu Asp Met Lys Glu 100 105 110

Met Lys Glu Asn Glu Met Lys Pro Ser Glu Ala Arg Val Pro Gln Leu 115 120 125

Ser Ser Leu Glu Leu Arg Arg Tyr Phe His Arg Ile Asp Asn Phe Leu 130 135 140

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Ser Ser Asn Phe Gln Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg 35 40 45

Leu Glu Tyr Cys Leu Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu

Ile Lys Gln Leu Gln Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile 75 70 Tyr Glu Met Leu Gln Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val 105 100 Tyr His Gln Ile Asn His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu 115 Lys Glu Asp Phe Thr Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys 135 Arg Tyr Tyr Gly Arg Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser 155 145 150 His Cys Ala Trp Thr Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr 165 170 Phe Ile Asn Lys Leu Thr Gly Tyr Leu Arg Asn <210> 8 <211> 520 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Rat IFN-like polypeptide cDNA insert and partial pAMG21 vector sequence <220> <221> CDS <222> (4)..(510) <400> 8 cat atg tgt gta tat ctc gat cat act atc ttg gag aat atg aaa ctt Met Cys Val Tyr Leu Asp His Thr Ile Leu Glu Asn Met Lys Leu 1 ctg agc agc atc cgt acc acc ttt cct ctg cgt tgt ctg aaa gat atc Leu Ser Ser Ile Arg Thr Thr Phe Pro Leu Arg Cys Leu Lys Asp Ile 20 acg gat ttt gag ttt cct caa gag att ctg ctg tac gtc cag cat gtg Thr Asp Phe Glu Phe Pro Gln Glu Ile Leu Leu Tyr Val Gln His Val 40

192

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Lys Lys Asp Ile Lys Ala Val Thr Tyr His Ile Ser Ser Leu Ala Leu 50 55 60

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85 90 ° 95

Cys Met Val Asp Glu Glu Asn Lys Asn Thr Glu Glu Asp Ser Thr Ser 105 100 Gln His Pro His Ser Glu Gly Phe Lys Ala Val Tyr Leu Glu Leu Asn 120 Lys Tyr Phe Phe Arg Ile Arg Lys Phe Leu Val Asn Lys Lys Tyr Ser 140 135 Phe Cys Ala Trp Lys Ile Val Val Glu Ile Arg Arg Cys Phe Ser 155 150 145 Ile Phe Tyr Lys Leu Leu Asn Met Asn 165 <210> 10 <211> 520 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Rat IFN-like polypeptide cDNA insert and partial pAMG21 vector sequence <220> <221> CDS <222> (4)..(510) <400> 10 cat atg tgt gta tat ctc gat cat act atc ttg gag aat atg aaa ctt Met Cys Val Tyr Leu Asp His Thr Ile Leu Glu Asn Met Lys Leu 10 ctg agc agc atc cgt acc acc ttt cct ctg cgt tgt ctg aaa gat atc 96 Leu Ser Ser Ile Arg Thr Thr Phe Pro Leu Arg Cys Leu Lys Asp Ile acg gat ttt gag ttt cct caa gag att ctg ctg tac gtc cag cat gtg 144 Thr Asp Phe Glu Phe Pro Gln Glu Ile Leu Leu Tyr Val Gln His Val 35 192 aaa aag gac atc aag gca gtc acc tat cat atc tct tct ctg gcg ctg Lys Lys Asp Ile Lys Ala Val Thr Tyr His Ile Ser Ser Leu Ala Leu 50 55 240 att att ttc agt ctt aaa gac tcc atc tcc ctg gcg aca gag gaa cgc Ile Ile Phe Ser Leu Lys Asp Ser Ile Ser Leu Ala Thr Glu Glu Arg 70 65 288 ttg gaa cgt atc cgt tct ggt ctt ttc aaa caa gtg cag caa gct cgt Leu Glu Arg Ile Arg Ser Gly Leu Phe Lys Gln Val Gln Gln Ala Arg

85

80

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tca caa cat cct cac tca gag ggc ttc aag gca gtc tac Ser Gln His Pro His Ser Glu Gly Phe Lys Ala Val Tyr 115	ctg gaa ttg Leu Glu Leu 125	384
aac aag tat ttc ttc cgt atc cgt aag ttc ctg gta aat Asn Lys Tyr Phe Phe Arg Ile Arg Lys Phe Leu Val Asn 130		432
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Lys Asp Ile Lys Ala Val Thr Tyr His Ile Ser Ser Leu 50 55 60	Ala Leu Ile	
Ile Phe Ser Leu Lys Asp Ser Ile Ser Leu Ala Thr Glu 65 70 75	Glu Arg Leu 80	
Glu Arg Ile Arg Ser Gly Leu Phe Lys Gln Val Gln Gln 85 90	Ala Arg Glu 95	
Cys Met Val Asp Glu Glu Asn Lys Asn Thr Glu Glu Asp	Ser Thr Ser 110	
Gln His Pro His Ser Glu Gly Phe Lys Ala Val Tyr Leu 115 120 125	Glu Leu Asn	

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Arg Val Thr Trp Gln Asn Leu Arg His Leu Ser Ser Met Ser Asn Ser
15 20 25

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Phe Tyr Glu Met Ser Leu Gln Ala Phe Asn Ile Phe Ser Gln His Thr

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gat cag caa gca gag tac ctg aac caa tgc ttg gag gaa gac gag aat 339
Asp Gln Gln Ala Glu Tyr Leu Asn Gln Cys Leu Glu Glu Asp Glu Asn
95 100 105

gaa aat gaa gac atg aaa gaa atg aaa gag aat gag atg aaa ccc tca 387 Glu Asn Glu Asp Met Lys Glu Met Lys Glu Asn Glu Met Lys Pro Ser 110 115 120

gaa gcc agg gtc ccc cag ctg agc ctg gaa ctg agg aga tat ttc 435

Glu Ala Arg Val Pro Gln Leu Ser Ser Leu Glu Leu Arg Arg Tyr Phe 125 130 135	
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tgg gag att gtc cga gtg gaa atc cgt cgt tgc ctg tac tac ttt tac Trp Glu Ile Val Arg Val Glu Ile Arg Arg Cys Leu Tyr Tyr Phe Tyr 155	531
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<223> Description of Artificial Sequence: Rat IFN-like polypeptide cDNA insert and partial pAMG21 vector sequence	
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Gln Pro Met Lys Arg Asp Ile Lys Lys Ala Phe Tyr Glu Met Ser Leu 50 55 60	
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Arg His Leu Lys Gln Ile Gln Ile Gly Leu Asp Gln Gln Ala Glu Tyr 85 90 95	
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Glu Met Lys Glu Asn Glu Met Lys Pro Ser Glu Ala Arg Val Pro Gln 115 120 125	
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Glu Ile Arg Arg Cys Leu Tyr Tyr Phe Tyr Lys Phe Thr Ala Leu Phe

165

Arg Arg Lys

170

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gac Asp	atg Met	aaa Lys 115	gaa Glu	atg Met	aaa Lys	gag Glu	aat Asn 120	gag Glu	atg Met	aaa Lys	ccc Pro	tca Ser 125	gaa Glu	gcc Ala	agg Arg	384
gtc Val	ccc Pro 130	cag Gln	ctg Leu	agc Ser	agc Ser	ctg Leu 135	gaa Glu	ctg Leu	agg Arg	aga Arg	tat Tyr 140	ttc Phe	cac His	agg Arg	ata Ile	432
gac	aat	ttc	ctg	aaa	gaa	aag	aaa	tac	agt	gac	tgt	gcc	tgg	gag	att	480

Asp Asn Phe Leu Lys Glu Lys Lys Tyr Ser Asp Cys Ala Trp Glu Ile 155 150 145 gtc cga gtg gaa atc cgt cgt tgc ctg tac tac ttt tac aaa ttt acc 528 Val Arg Val Glu Ile Arg Arg Cys Leu Tyr Tyr Phe Tyr Lys Phe Thr 170 165 556 gct ctg ttc cgt cgt aaa taatggatcc Ala Leu Phe Arg Arg Lys 180 <210> 17 <211> 182 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Human IFN-like polypeptide cDNA insert and partial pAMG21 vector sequence <400> 17 His Met Leu Asp Cys Asn Leu Leu Asn Val His Leu Arg Arg Val Thr Trp Gln Asn Leu Arg His Leu Ser Ser Met Ser Asn Ser Phe Pro Val Glu Cys Leu Arg Glu Asn Ile Ala Phe Glu Leu Pro Gln Glu Phe Leu Gln Tyr Thr Gln Pro Met Lys Arg Asp Ile Lys Lys Ala Phe Tyr Glu 55 60 Met Ser Leu Gln Ala Phe Asn Ile Phe Ser Gln His Thr Phe Lys Tyr 70 75 65 Trp Lys Glu Arg His Leu Lys Gln Ile Gln Ile Gly Leu Asp Gln Gln 90 Ala Glu Tyr Leu Asn Gln Cys Leu Glu Glu Asp Glu Asn Glu Asn Glu Asp Met Lys Glu Met Lys Glu Asn Glu Met Lys Pro Ser Glu Ala Arg 120 Val Pro Gln Leu Ser Ser Leu Glu Leu Arg Arg Tyr Phe His Arg Ile 140 135 Asp Asn Phe Leu Lys Glu Lys Lys Tyr Ser Asp Cys Ala Trp Glu Ile 150 145 Val Arg Val Glu Ile Arg Arg Cys Leu Tyr Tyr Phe Tyr Lys Phe Thr 170

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